

Does multicomponent exercise improve cardiovascular and cognitive abilities among young medical students?

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Dear Editor

I would like to emphasize the role of multicomponent exercise to improve cardiovascular and cognitive abilities which are very essential for a medical student to become an efficient clinician in the healthcare system. The pandemic has taught us the current status of the healthcare system in India and the resistance to withstand further consequences. One of the components to be trained for every medical student must be habituated to certain preventive measures. Physical inactivity, as well as the health issues that come with it, is a contemporary and growing hazard to public health. According to the World Health Organization (WHO), around 60% of the world's population does not reach the recommended daily minimum of physical activity[1]. Noncommunicable diseases (NCDs) will be responsible for 73% of deaths and 60% of the global disease burden. Physical activity is essential in the prevention of non-communicable diseases[2]. Exercise habits may be negatively affected by the stress of meeting the duties of becoming a physician. Physical activity can be defined as “the bodily movement produced by skeletal muscles that result in energy expenditure”[3,4]. Regular physical activity is a key component of a healthy lifestyle, including strength, muscular endurance, speed, and flexibility. Lack of physical activity throughout adolescence can contribute to health issues later in life[5]. Regular physical activity has various health benefits, including reduced cardiovascular mortality and improved quality of life and appears to lower the chance of cognitive impairment, such as Alzheimer's disease. The American Heart Association, the World Health Organization, and the American College of Sports Medicine (ACSM) all agree that 30 minutes of moderate-intensity physical activity should be done five days a week. Medical students are

expected to have a good understanding of physical activity and its advantages. As health care providers, they will have an impact on their patients' attitudes toward physical activity and have an ethical obligation to prescribe appropriate exercises. The literature on physical activity levels has shown disparate results, frequently demonstrating a stark disparity between medical students' knowledge of the benefits of regular physical activity and its application in daily life. Medical students are the most underestimated vulnerable population prone to stress which may increase cardiovascular risks and cognitive impairment. The healthy life span of healthcare providers can be extended using different grades and intensities of exercise together to obtain effective improvement. It reduces the rate of mortality and comorbidities of their stress-associated diseases and improves the quality of life.

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